



ENERGY EFFICIENCY IN HOUSING SECTOR OF UKRAINE

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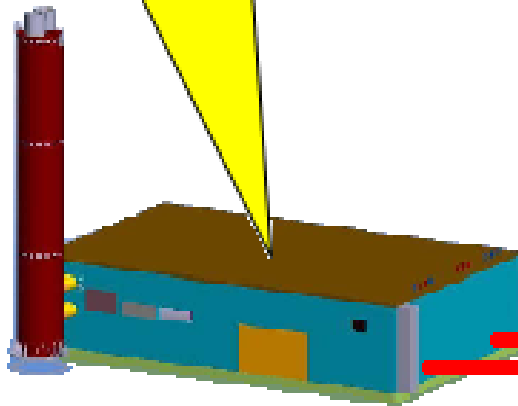


Heat energy loss

In residential housing stock
up to 60%

Boiler-houses
Up to 15 %

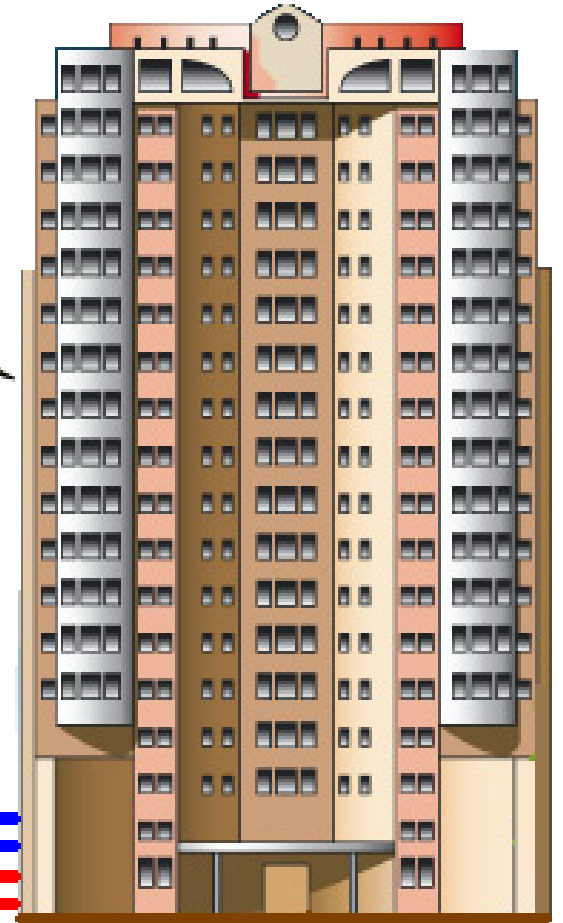
External pipelines
15-25 %



Boiler-house



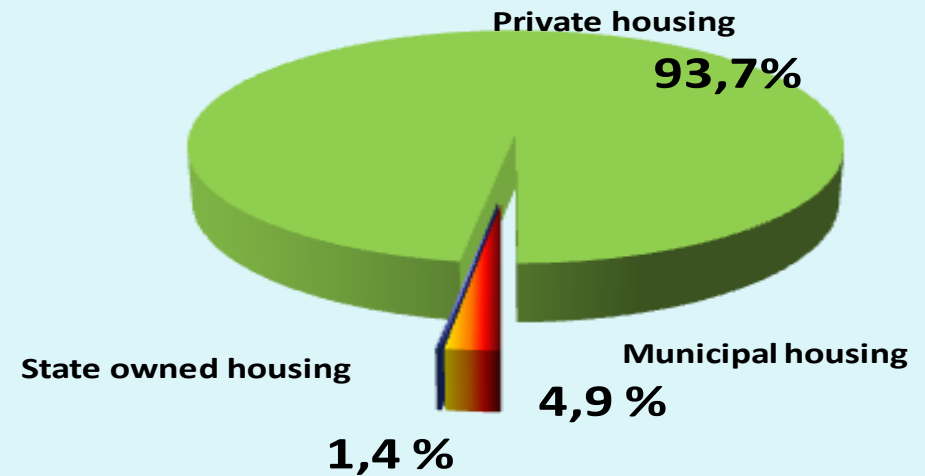
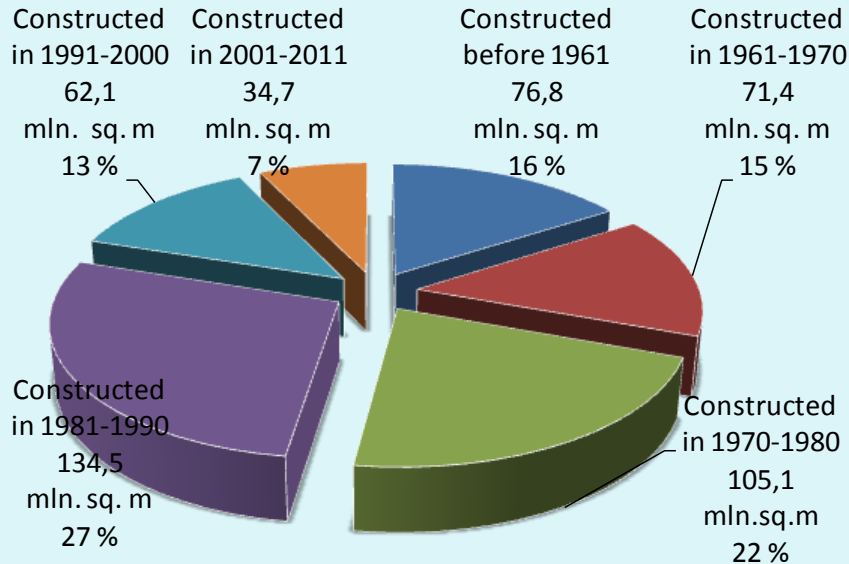
IHP



**Residential
apartment house**



Characteristics of the housing stock (by year)



❑ Areas of priority:

- ✓ Construction of new energy efficient housing
- ✓ Retrofitting of old housing stock

❑ Near-term outlook:

- ✓ Complete sanitation (renovation) of the existing housing stock
- ✓ Gradual transition to "passive" houses.

Following recommendations of Directive 2010/31/EU, Ukraine has adopted and put into force the following documents:



- **ГСТУ Б А.2.2-8:2010** "Designing. Section "Energy efficiency" in documentation designed for construction."
- **ГСН В.1.2-11:2008** "Basic requirements for buildings and facilities. Saving energy"
- **ГСН В.2.6-31:2006** "Thermal insulation of buildings"
- **ГСН В.2.5-67:2013** "Heating, ventilation and air conditioning."

ГСТУ – Industry-specified Standard of Ukraine

ГСН – State Construction Norms



"On energy efficiency of residential and public buildings"

- ✓ Ensure conditions for rational use of energy resources in residential and public buildings;
- ✓ Adjust relations in area of the resource supply and consumption in buildings, promote the use of alternative energy sources for creation of optimal microclimatic conditions in premises;
- ✓ Create investment climate favorable for the development of the construction industry and regional economics to ensure energy efficiency of buildings.

Following recommendations of Directive 2010/31/EU, Ukraine has adopted and put into force the following documents:



System of norms and standards effective in the field of energy efficiency of buildings:

- ✓ **ГСТУ-Н Б А.2.2-5:2007** (Energy Performance Certificate)
- ✓ **ГСТУ Б В EN 7730:2012** (Ergonomics of thermal environments)
- ✓ **ГСТУ Б В EN15261:2012** (Calculated parameters of microclimate)
- ✓ **ГСТУ Б В EN 13790:2013** (Energy rating)
- ✓ **ГСТУ Б В EN15217:2012** (Energy certification)
- ✓ **ГСТУ Б В EN 13790:2012** (Calculation of energy consumption)

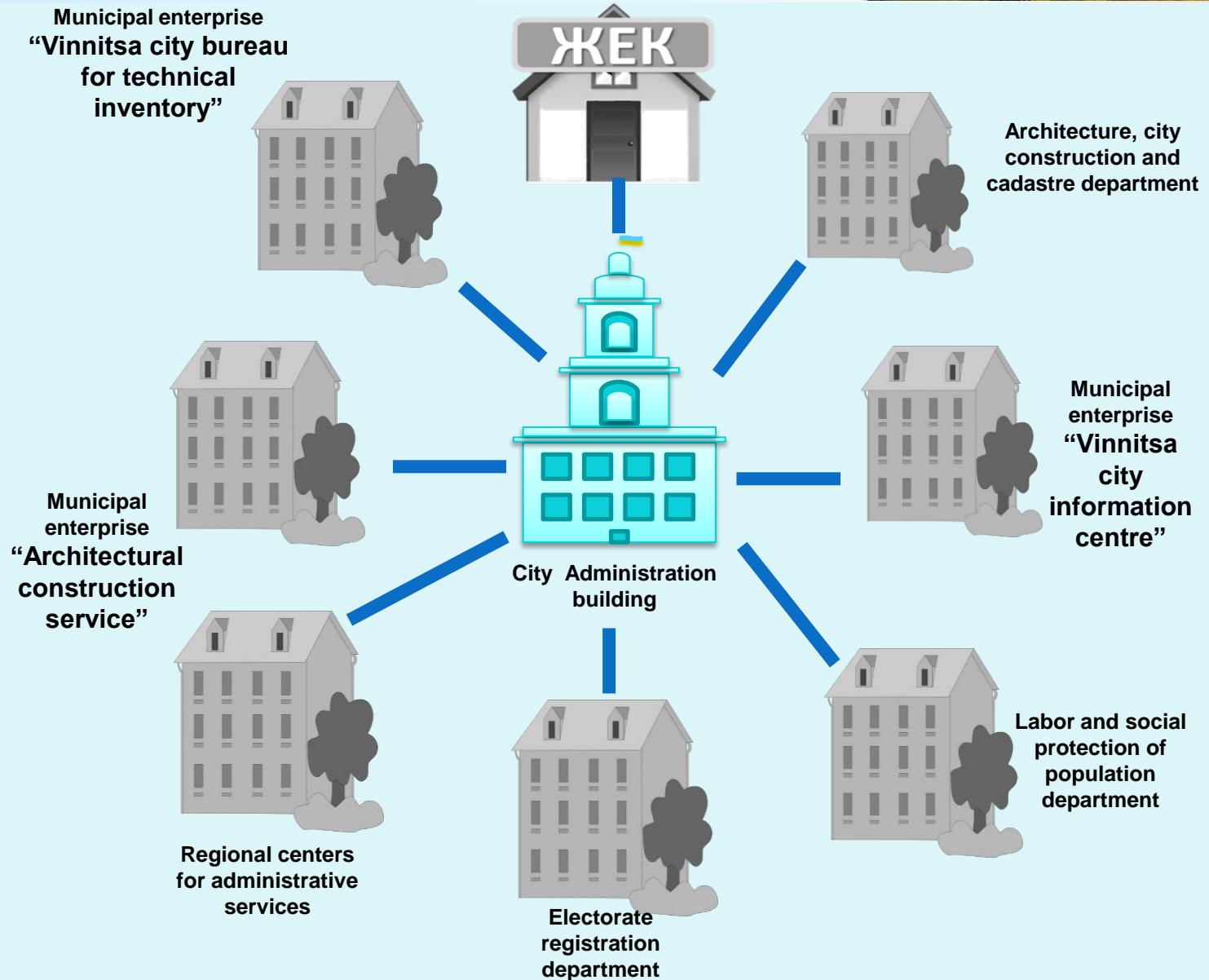
Drafts of the standards and norms

- ❑ **ГСТУ-Н Б А.2.2-xxx:201x** "Guideline on method for energy assessment and energy certification of buildings";
- ❑ **ГСТУ – Н Б А.2.2-xxx:201x** "Energy efficiency in buildings. National method of energy consumption calculation for heating, cooling, ventilation, lighting and hot water supply."



Networked by optical fibre:

- ✓ 9 buildings;
- ✓ 34 units of the Municipality and 19 municipal enterprises;
- ✓ 1200 personal computers



E-Governance Technologies

❑ Internal portal

✓ It is used to save working documentation

❑ Consists of:

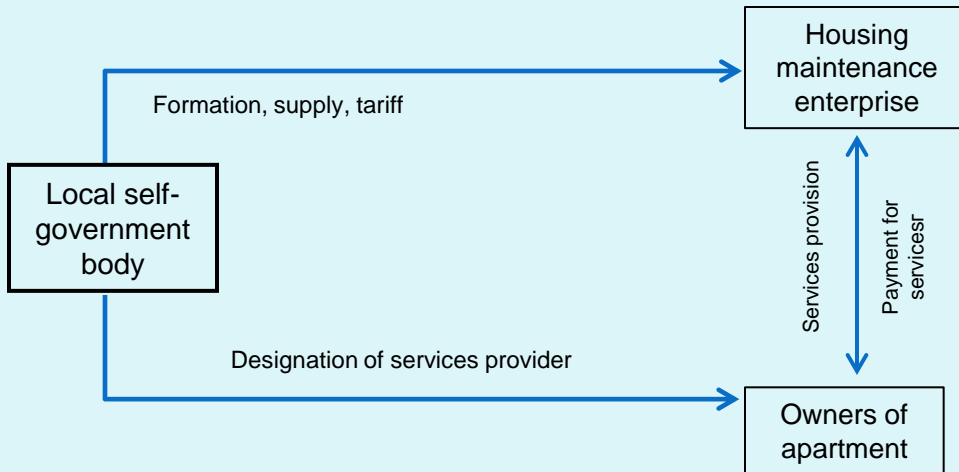
- ✓ Sites of the departments
- ✓ Electronic archive
- ✓ Data base
- ✓ Reports centre
- ✓ Informational services

The image shows two screenshots of the Vinnytsia City Council's internal portal. The top screenshot is the main page, titled "Внутрішній портал міської ради" (Internal portal of the city council). It features a navigation menu on the left with categories like "Питання", "Сайти департаментів", and "Вибори". The main content area includes a welcome message, a list of departments, and a section for "Шановні колеги!" (Dear colleagues!) with two items: "1. Закордонний досвід впровадження інформаційних систем" and "2. Досвід організації транспортної системи на прикладі країни Ізраїль". The bottom screenshot shows a "Центр звітів" (Reports Center) with various service icons such as "ГІС", "Бази даних", "Органайзер", "Голосування", "Цілодובה варт", "Рух спецтехніки", "Договори благоустрою", "Червоні лінії", "План 2000", "Земельні ділянки", "План зонування", "Загальний план ГП", "Вибори", "Пам'ятки архітектури", "Адресна схема", "Генеральний план", "Інженерні мережі", "Громадські слухання", "Навчальні заклади", "Туристичні об'єкти", and "Громадський транспорт".

HOUSING STOCK IN UKRAINE



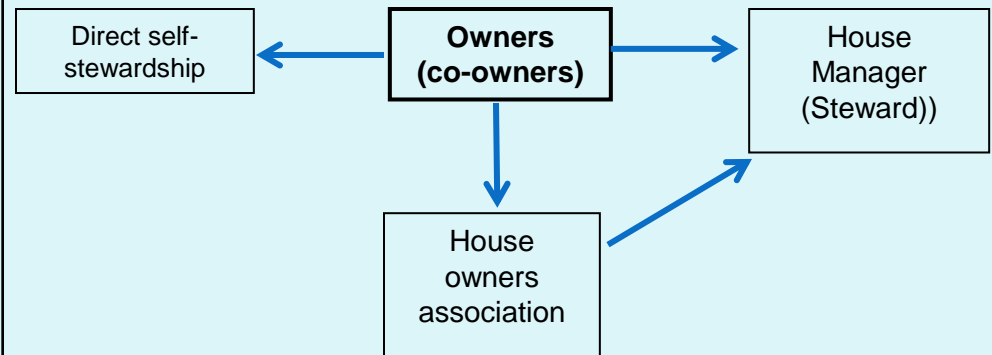
Existing system



Prospective system

Mode of stewardship

- ✓ Direct self-stewardship by co-owners
- ✓ HOA
- ✓ House Manager (Steward)



The system bottlenecks

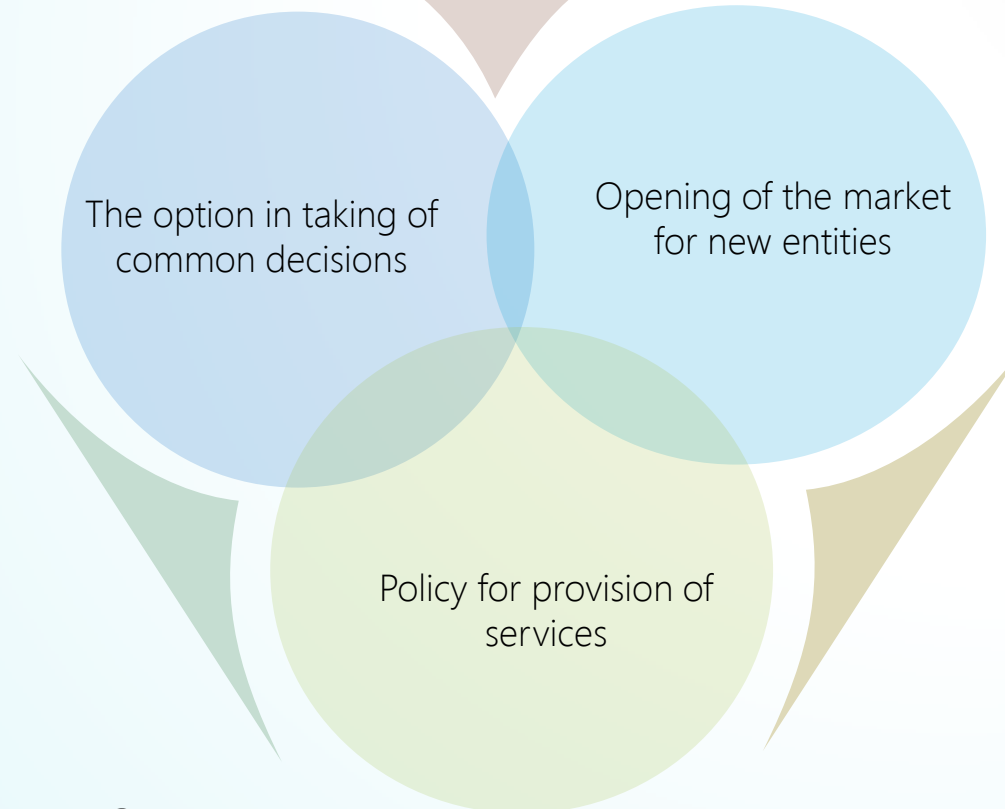
- ❑ **Absence of customer** capable to select (monopolization of the demand for house stewardship and maintenance services)
- ❑ **Absence of competition** (monopolization of the supply of house stewardship and maintenance services), what leads to low quality of services
- ❑ **Financing** of capital repairs of multiapartment houses by their co-owners is not envisaged
- ❑ **Absence of effective mechanisms** for financing of the measures improving energy efficiency

Advantages of the suggested system

- ❑ **Demonopolization of demand**- provides co-owners (consumers) with opportunity to personally decide about the most appropriate for them mode of their house stewardship and maintenance
- ❑ **Demonopolization of supply**- formation of a competitive market of multiapartment house stewardship services in consequence of the negotiable prices for those services
- ❑ **State acts as affiliate** – provides support through implementation of “easing of credits” and “cost sharing” programs
- ❑ Compulsory participation of co-owners in financing of capital repairs and realization of the measures improving energy efficiency of their houses

Improvement of housing legislation

Draft Law of Ukraine "On peculiarities of ownership in multiapartment house"



and "On amendments to some legal acts to improve relations in the sphere of housing and communal services."

FREE SELECTION OF A STEWARDSHIP MODE



Stewardship by apartment house co-owners



Direct:

by the co-owners through taking decisions by a majority vote (so called "nominal association" without registration of a legal entity)

Through HOA:

creation of HOA registered as a legal entity and taking decisions by its statutory bodies

Stewardship services provided by professional House manager



Through a professional House manager:

selection and hiring of a House manager by the co-owners or designation of a House manager by body of local self-government in case if the co-owners failed to decide about the mode of stewardship

- ✓ In case if co-owners during one year failed to decide about the mode for their house stewardship, BLSG shall designate them House manager.
- ✓ Co-owners may reject the designated House manager and take decision about the mode of their house management and maintenance.

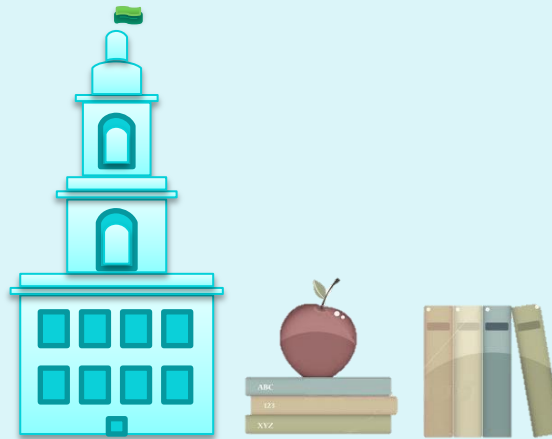
AWARENESS CAMPAIGN



- ❑ Provide citizens with legal information required for understanding of their own rights and responsibilities in management of common property in apartment house
- ❑ Raise awareness of mass media, state officials and public servants, mayors and activists of the co-owners associations



State officials

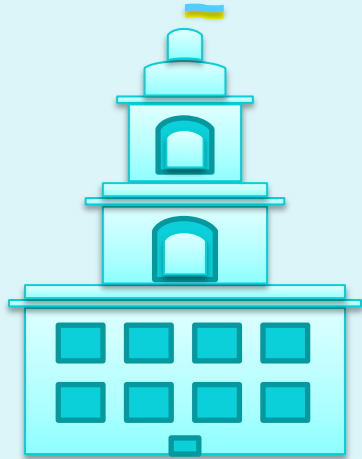


**Mayors and HOAs'
activists**



Mass Media

IMPROVEMENT OF HOUSE ENERGY EFFICIENCY



STATE

- ✓ Legislation
- ✓ Social protection
- ✓ Supporting programs



Credit resources

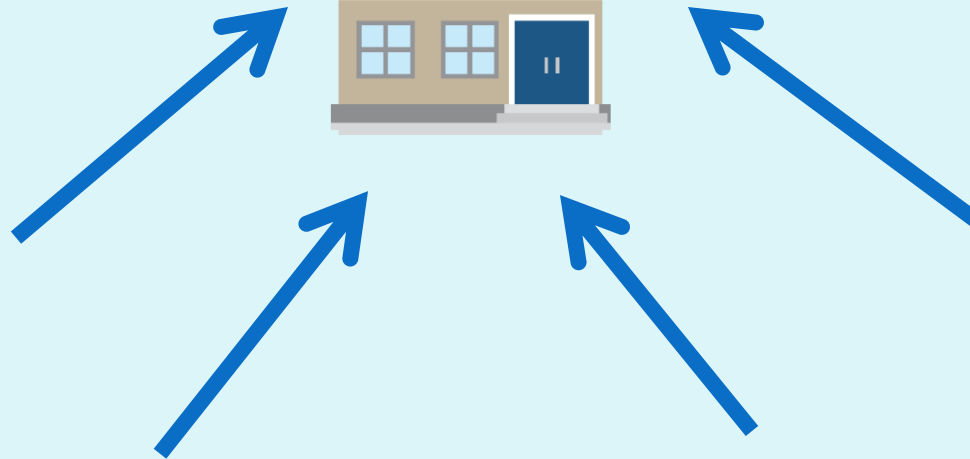


- ✓ Introduction of new technologies
- ✓ Works for improvement of energy saving



Co-owners

- ✓ Taking decisions
- ✓ Initial contribution





THANK YOU FOR YOUR ATTENTION!

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